THRINAXORIA PAYNEI, A NEW SPECIES OF PACHYDESMININE MILLIPED FROM GEORGIA (POLYDESMIDA: XYSTODESMIDAE)[1]

Rowland M. Shelley[2]

ABSTRACT: *Thrinaxoria paynei*, n. sp., is described from 28 males, 32 females, and three juveniles collected at Perry, Houston County, Georgia. It is a member of the tribe Pachydesmini and is distinguished by the narrowly segregated tibial process and solenomere, which are parallel and bisinuate.

The southeastern Coastal Plain is the area of concentration of the tribe Pachydesmini (Polydesmida: Xystodesmidae). It comprises three genera: *Pachydesmus* Cook, with two species, one east and one west of the Mississippi River; *Dicellarius* Chamberlin, with five species, primarily in the Coastal Plain but also extending northward into the Ridge and Valley, Appalachian Plateau, and Blue Ridge Physiographic Provinces; and *Thrinaxoria* Chamberlin and Hoffman, with two species, one ranging from western Alabama to eastern Texas, and one extending from southeastern Tennessee and southwestern North Carolina to southern Georgia (Hoffman 1958; Shelley 1984*a*, 1990; Stewart 1969). The two southernmost records that I (Shelley 1984*a*) cited for *T. bifida* (Wood), in southern and central Georgia, are disjunct from the bulk of the range some 216 km (135 mi) to the north. A reexamination shows that the southernmost specimen, from Dougherty County, Georgia, is indeed *T. bifida*, but that from central Georgia, from Perry, Houston County, is clearly an undescribed species, which I put on record here. It is one of two localized xystodesmid species in central Georgia, the other being *Sigmoria* (*Cheiropus*) *persica* (Hoffman) (tribe Apheloriini), in Peach, Houston, Crawford, and Taylor counties (Shelley 1984*b*, Shelley and Whitehead 1986). I thank J. A. Payne, the collector of the specimens, and R. L. Hoffman, for recognizing them as new and bringing them to my attention.

Thrinaxoria paynei, NEW SPECIES

Fig. 1

Type specimens. Male holotype and 11 female paratypes (Virginia Museum of Natural History collection [VMNH]) collected by J. A. Payne, 11 December 1983, from Perry, Houston County, Georgia. Paratypes (VMNH) taken by same collector at same site as follows: one male on 26-28 December 1982; 26 males, 22 females, and 3 juveniles on 29 April 1984. Four male paratypes deposited in the North Carolina State Museum of Natural Sciences.

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[1] Received November 13, 2001; Accepted December 8, 2001.

[2] Research Laboratory, North Carolina State Museum of Natural Sciences, 4301 Reedy Creek Rd., Raleigh, North Carolina 27607; email <rowland.shelley@ncmail.net>

Diagnosis. Distinguished by the narrowly segregated, parallel, and bisinuate tibial process and solenomere, and the basally broad, elongate prefemoral process.

Holotype. Length 25.2 mm, maximum width 4.9 mm, W/L ratio 19.4%.

Head capsule smooth, polished; epicranial suture indistinct. Antennae reaching back to 3rd tergite, becoming progressively more hirsute distad, with four apical sensory cones, first antennomere subglobose, 2-6 clavate, 7 short and truncate; relative lengths of antennomeres 2>5>3=4=6>1>7. Genae not margined laterally, ends broadly rounded and projecting beyond adjacent cranial margins. Facial setae as follows: epicranial 2-2, interantennal 1-1, frontal 1-1, genal not detected and presumed absent.

Terga smooth, polished. Collum moderately broad, ends produced slightly beyond those of following tergite. Paranota moderately declined, continuing slope of dorsum; anterior corners

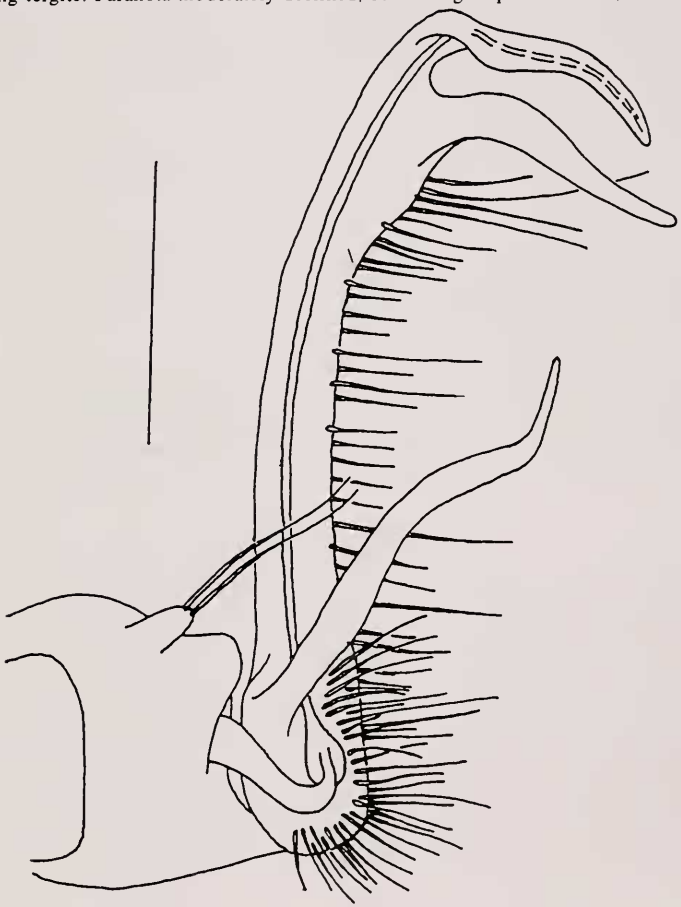

Fig. 1. *Thrinaxoria paynei*, left gonopod of holotype, medial view. Scale line = 0.50 mm.

rounded to blunt, caudolateral corners acute and slightly produced on segments 2-17. Peritremata thin and inconspicuous, ozopores located in caudal halves, opening laterad.

Sides of metazonites finely granular, without noticeable grooves or impressions; strictures sharp, distinct. Gonapophyses long, considerably elevated above coxae of 2nd legs. Pregonopodal sterna flattened and glabrous, that of segment 6 depressed to accommodate apices of gonopodal telopodites. Postgonopodal sterna flattened and unmodified, glabrous, caudal margins sublinear. Coxae without projections; prefemora without ventrodistal spines on first four segments, spines present on legs of segments 5-18; tarsal claws curved on all segments. Hypoproct broadly rounded; paraprocts with margins distinctly thickened.

Gonopodal aperture ovoid, not indented anteriolaterad, margins flush with metazonal surface. Gonopods *in situ* extending forward over 6th segment in subparallel arrangement, apices overlapping. Gonopod structure as follows (Fig. 1): coxa of normal size and configuration, with tubercle-like apophysis on ventral surface giving rise to two macrosetae. Prefemur long and narrow, with hairs along entire caudal margin; prefemoral process elongate and narrow, relatively broad basally, narrowing distad to acuminate tip, angling across stem in subbisinuate configuration. Acropodite with solenomere and tibial process narrowly segregated, relatively long and subparallel, gently bisinuate. Prostatic groove running along medial surface of prefemur, crossing to lateral side at base of solenomere.

Female paratype. Length 21.8 mm, maximum width 4.3 mmm, W/L ratio 19.7%. Agreeing closely with holotype in somatic features except paranota more strongly declined, giving appearance of more highly arched body. Cyphopods *in situ* with openings of valves visible in aperture. Valves subequal, margins raised creating central depression. Receptacle small and subtriangular, located mediad to valves.

Male paratypes. The male paratypes agree closely with the holotype, except the prefemoral process angles more strongly across the telopodite stem in some individuals.

Ecology. The holotype was encountered on moist pavement in a residential section of Perry; paratypes were collected on asphalt and concrete streets.

Distribution. Known only from the type locality.

Remarks. This species is named for J. A. Payne, who has collected many interesting millipeds in the southeast. Most of the specimens were collected in December, which suggests that more Coastal Plain xystodesmids await discovery in Georgia in the cooler months of the year, when few collectors are active.

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